

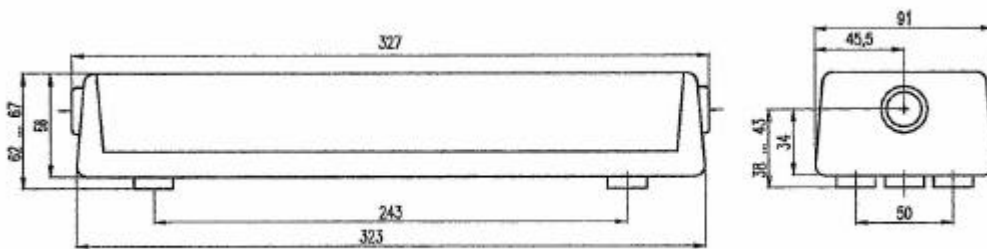
SOLID-STATE RAMAN SHIFTER MODEL LZ221

The Solid State Raman Shifter LZ series uses innovative technology $\text{Ba}(\text{NO}_3)_2$ (shift 1047 cm^{-1}) and KGdWO_4 (shift 767.3 and 901.5 cm^{-1}) crystals. The crystals' unique properties allow their application for Raman frequency conversion ranging from VIS to IR. The nonlinear crystal placed in the optimized cavity ensures high conversion efficiency of the pump radiation to the 1st, 2nd or 3rd order Stokes, alongside with low generation thresholds. Upon customer's order mirrors can be installed into the LZ221 Shifter for obtaining definite Stokes, as well as for receiving the multi-line output (generating several components simultaneously) with the total conversion efficiency more than 50%. The design of this device minimizes the needs for user adjustments and allows to easily replacing cavity mirrors while re-aligning the Raman Shifter from one wavelength to another.



Unlike gas Raman Shifters using high pressure cells, the LZ221 is characterized by complete safety in operation and low operating densities of pump radiation, what leads to additional advantages and facilitates the operation.

External Dimensions of the Raman Shifter Model LZ221 (in mm)



Del Mar Ventures

4119 Twilight Ridge

San Diego CA 92130

Tel (858) 755-6727

v/fax (858) 630-2376

delmar@sciner.com

<http://www.sciner.com/>

Raman Shifter Model LZ221 Specifications

Pump laser type	Pump wavelength, nm	Active medium*	Output wavelength, nm		
			1st Stokes	2nd Stokes	3rd Stokes
Nd:YAG	532	1	555	579	606
		2	559	588	621
		3	563	599	639
	1064	1	1159	1272	1409
		2	1177	1317	1494
		3	1197	1369	1598
	1318	1	1466	1652	—
		2	1496	1729	—
		3	1529	1820	—
Ruby	694	1	733	777	826
		2	740	793	854
		3	748	812	887
Ti:Sapphire	750-950	1	796-1025	848-1112	907-1216
		2	804-1039	867-1146	941-1279
		3	814-1055	890-1189	981-1354
Forsterit	1200-1300	1	1322-1444	1471-1624	—
		2	1346-1473	1531-1698	—
		3	1372-1505	1603-1786	—
* 1 — KGdWO ₄ crystal, shift 767.3 cm ⁻¹ * 2 — KGdWO ₄ crystal, shift 901.5 cm ⁻¹ * 3 — Ba(NO ₃) ₂ crystal, shift 1047 cm ⁻¹					
Specifications are subject to change without notice.					

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